

Q²

--According to a first embodiment, the object of the invention is a recombinant retroviral vector for the cloning and/or express and/or transfer of an exogenous nucleotide sequence, characterized in that it consists of any sequence contained in the ClaI-PvuII fragment situated approximately between nucleotides 7702 and 1527 (SEQ ID NO: 11) of the sequence given in Figure 1 and comprising the LTR sequence included between nucleotides 7842 and 144, the PBS site starting at nucleotide 145, the packaging sequence included in the sequence of 250 nucleotides following the end of the LTR sequence, the said sequence being capable of controlling the cloning and/or expression and/or transfer of the exogenous sequence.--

Please replace the paragraph beginning at page 3, line 19, with the following rewritten paragraph:

Q³ 09970597.100403

--According to another embodiment of the invention, the recombinant vector is characterized in that it consists of any sequence contained in the ClaI-BamHI fragment comprising the nucleotides 7702 to 310 (SEQ ID NO: 13) of the sequence shown in Figure 1, and comprising the LTR sequence included between the nucleotides 7842 and 144, the PBS site starting at nucleotide 145, the packaging sequence included in the sequence of 250 nucleotides following the end of the LTR sequence, the said sequence being capable of controlling the cloning and/or expression and/or transfer of the exogenous sequence, whatever its transcriptional orientation with respect to the transcriptional orientation of the virus.--

Please replace the paragraph beginning at page 3, line 30, with the following rewritten paragraph:

Q⁴

--According to this second embodiment of the invention, the vector is thus a retroviral vector for the cloning and/or expression and/or transfer of an exogenous nucleotide sequence consisting of any sequence contained in the ClaI-BamHI fragment situated approximately between nucleotides 7702 and 310 (SEQ ID NO: 13) of the sequence given in Figure 1, the said sequence having the capacity to control the cloning and/or expression and/or transfer of the exogenous sequence.--

Please replace the paragraph beginning at page 4, line 17, with the following rewritten paragraph:

Q5 --According to an attractive embodiment of the invention, the recombinant vector is characterized in that it consists of all of the ClaI-PuvII fragment, comprising nucleotides 7702 to 1527 (SEQ ID NO: 11) of the sequence shown in Figure 1.--

Please replace the paragraph beginning at page 4, line 21, with the following rewritten paragraph:

Q6 --Another preferred retroviral vector consists of all of the ClaI-BamHI fragment (7702 to 310) (SEQ ID NO: 13).--

Please replace the paragraph beginning at page 5, line 16, with the following rewritten paragraph:

Q7 --Preferably the recombinant vector additionally comprises a part of the gag sequence situated between the nucleotides 619 and 2235 (SEQ ID NO: 14) of the sequence shown in Figure 5, in particular the sequence included between nucleotides 619 and 1527 (SEQ ID NO: 15) of the sequence shown in Figure 1.--

Please replace the paragraph beginning at page 6, line 21, with the following rewritten paragraph:

Q8 --A useful vector of the invention lacking the envelope sequence consisting of the fragment comprising nucleotides 7806 to 1527 (SEQ ID NO: 12) of the sequence shown in Figure 1.--

Please replace the paragraph beginning at page 6, line 24, with the following rewritten paragraph:

Q9 --The invention also relates to a recombinant vector such that the sequence contained in the ClaI-PvuII fragment (7702-1527) (SEQ ID NO: 11) and/or this fragment and/or the sequence contained in the fragment ClaI-BamHI (7702-310) (SEQ ID NO: 13) and/or this fragment is replaced either by a sequence hybridizing under conditions of high

Q⁹

stringency with the sequence corresponding to the above-mentioned fragments or by a sequence having an at least 95% nucleotide homology with the sequence corresponding to the above-mentioned fragments or at least 85% homology in the case of the U3 sequence.--

Please replace the paragraph beginning at page 12, line 1, with the following rewritten paragraph:

--Other characteristics and advantages of the invention will become apparent in the examples and Figures which follow.

Figure 1: Sequence of viral DNA used for the construction of the vector FOCH29.

Figure 2: A: Restriction map of the vector FOCH29.

References Seq "FB29"

Q¹⁰

09970597-100401

Cla -----> U3 140 (7702-7842)

U3 -----> R410 (7842-8255)

R -----> CBS 145 (0-145)

PvuII -----> BamHI 208

PvuII -----> PvuII 1098

PvuIIMT -----> PvuII 1669

BsmAI -----> 55/150/765/1766/2531/2684--

Please replace the paragraph beginning at page 15, line 9, with the following rewritten paragraph:

--The oligonucleotide sequences used are:

Q¹¹

1°) - for the first pair:

5' CTGCTGACGGGAGAAGAAAAAC-3' (SEQ ID NO: 3)

5' CCCGCTCAGAAGAACTCGTC-3' (SEQ ID NO: 4)

2°) - for the second pair:

5' GACGAGTTCT TCTGAGCGGG-3' (SEQ ID NO: 5)

5' GATCTGAACT TCTCTATTCTTG-3' (SEQ ID NO: 6)--

Please replace the paragraph beginning at page 28, line 5 with the following rewritten paragraph:

--The viral integration was investigated by molecular methods, in particular by PCR using the following primers: oligo-SENSE situated in the beta-galactosidase gene with the following sequence: 5'- CGA CTC CTG G AG CCC GTC AGT ATC-3' (SEQ ID NO: 7); oligo-ANTISENSE situated in the viral LTR, overlapping between R and the start of U5 (LTR-508): 5'- CAG CGA GAC CAC GAG TCG GAT GC-3' (SEQ ID NO: 8) in a region which has been prepared by EspI/BssHII deletion.--

Please replace the paragraph beginning at page 29, line 4 with the following rewritten paragraph:

--The construction was made from the plasmid pUC19 including the EcoRI-PvuII fragment described in part B1-1: enzymatic cutting by the restriction enzyme EspI (or IsoCelII) at position 7864 (namely +23 of the viral LTR). At the 5' end the bases generated by a EcoRI cut were artificially added to a double stranded synthetic oligonucleotide complementary to the 23 bases of the LTR (140 bases, 103 of which are bases of the envelope). At the 3' end the oligonucleotide is complementary to the cohesive SpeI ends. The oligonucleotide sequences are the following: oligo-SENSE 5' - AAT TCA ATG AAA GAC CCC AAA TTG C-3' (SEQ ID NO: 9), oligo-ANTISENSE 5' - TAA GCA ATT C GG TGG GGT CTT TCA TTG-3' (SEQ ID NO: 10).--

Please replace the paragraph beginning at page 30, line 1 with the following rewritten paragraph: